

THE CLAIMS DEFINING THE INVENTION ARE AS FOLLOWS:

1. A control assembly for an electrocoagulation cell comprising:
  - a. a plurality of electrodes;
  - b. releasable connection means between at least a selection of  
5 the electrodes comprising an elongate busbar which is arranged normal to respective top edges of each electrode in plan view and which extends through a notch, slot or aperture located in individual tabs which each extend upwardly from an adjacent top edge of each electrode whereby the busbar is  
10 spaced from the top edges of each electrode so as to avoid contact with liquid contained in the electrocoagulation cell in use as well as a plurality of fasteners attached to said busbar whereby each fastener abuts or is located closely adjacent to an adjoining surface of each electrode; and  
15 c. electrical connection means attached to the busbar at each end thereof which in use is connectable to a power supply.
2. A control assembly as claimed in claim 1 wherein the busbar is threaded and the plurality of fasteners comprise one or more threaded nuts each having an associated washer.
- 20 3. A control assembly as claimed in any preceding claim wherein the electrical connection means comprises a power lead secured to an electrical connector having an aperture for engaging with an adjacent end of the busbar.
4. A control assembly as claimed in claim 3 wherein each electrical

connector is attached to the busbar with a fastener on either side of the connector.

5. An electrocoagulation system comprising:
- a. a controller that is selectable for providing both a constant output current and/or a constant output voltage whereby the electrolytic cell may process samples of varying characteristics;
  - b. a voltage regulator;
  - c. a transformer having a primary coil connected to the voltage regulator;
  - d. a rectifier connected to a secondary coil of the transformer; and
  - e. a voltage or current regulator which receives an output from the rectifier and together with said controller effects a firing control of the voltage regulator.
6. An electrocoagulation system as claimed in claim 5 wherein the control means in a voltage and current potentiometer.
7. An electrocoagulation system as claimed in claim 6 wherein the potentiometer is set for a constant output DC current thereby allowing the power supply to provide a variable output DC voltage.
8. An electrocoagulation system as claimed in claim 6 wherein the potentiometer is set for a constant output DC voltage thereby allowing the power supply to provide a variable output DC current.
9. An electrocoagulation system as claimed in any one of claims 5-8 which has an adjustable switch connectable to the power source and which is also connected to the voltage regulator.
10. An electrocoagulation system as claimed in claim 5 which further includes a polarity switch relay to select an output polarity.
11. An electrocoagulation system as claimed in any one of claims 5 to 10 which further includes a current trip for protection against exceeding a maximum DC amperage rating of the power supply.
12. An electrocoagulation system as claimed in any one of claims 5 to 11

which further includes an over temperature relay to sense any overheating in the rectifier.